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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,175	03/31/2004	Minoru Kawahara	SON-2968	4461

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EXAMINER	
GUPTA, PARUL H	

ART UNIT	PAPER NUMBER
2627	

DATE MAILED: 11/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/813,175	KAWAHARA, MINORU	
	Examiner	Art Unit	
	Parul Gupta	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-15 are pending for examination as interpreted by the examiner. The IDS filed on 10/3/06 was considered.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 10 and 11 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The definitions of the exhaustion limit value parameter and frequency limit value parameter are critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). There is nothing in the specification to explain exactly what these values should be, nor is there any reference in the disclosure to the exhaustion limit value parameter.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 15 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 15 is drawn to a "**program**" *per se* as recited in the preamble and as such is non-statutory subject matter. See MPEP § 2106.IV.B.1.a. Data structures not claimed as embodied in computer readable media are descriptive material *per se* and

are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed computer readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1-3, 5-6, and 12-15 are rejected under 35 U.S.C. 102(a) as being anticipated by Ikeda, US Patent 6,295,409.

Regarding claims 1, 13, 14, and 15, Ikeda discloses in figure 1 a recording/reproducing device, method, and a recording medium on which a program readable by a computer to make the computer execute a process is recorded comprising: recording means (done by element 36 of figure 1) for recording data on an information recording medium (column 2, lines 57-65); readout means (element 32 of figure 1) for collectively reading out said data recorded on said information recording medium in units of a predetermined amount of data while the recording by said recording means is in progress (column 2, line 66 to column 3, line 8); and transmission means (element 32 of figure 1) for transmitting said data read out by said readout means ("writing the data to the respective recording area" as given in column 3, lines 3 and 8).

Regarding claim 2, Ikeda discloses the recording/reproducing device according to claim 1, wherein: said recording means (done by element 36 of figure 1) substantially simultaneously records first data at a high bit rate and second data at a lower bit rate than that of said first data, both data corresponding to a same material, on said information recording medium (column 2, lines 17-44); and said readout means (element 32 of figure 1) collectively reads out said second data recorded on said information recording medium in units of a predetermined amount of data while the recording ("writing") by said recording means is in progress (column 2, lines 17-44).

Regarding claim 3, Ikeda discloses in figure 1 the recording/reproducing device according to claim 1, wherein said recording means intermittently records said first data and said second data on a physically same track on said information recording medium.

Column 2, lines 45-54 explain that the data is written in different radial positions on the same recording medium, meaning that the writing is done on the same track.

Regarding claim 5, Ikeda discloses the recording/reproducing device according to claim 1, further comprising storage means ("buffer memory" of elements 14 and 24 of figure 1) for temporarily storing said data to be recorded.

Regarding claim 6, Ikeda discloses the recording/reproducing device according to claim 5, wherein, in a case where data to be transmitted is stored by said storage means ("buffer memory" of elements 14 and 24 of figure 1), said readout means (element 32 of figure 1) interrupts the readout of said data while said transmission means (element 32 of figure 1) transmits said data stored by said storage means (column 9, lines 41-50 explains that reading out and transmitting/writing are done intermittently).

Regarding claim 12, Sako et al. discloses the recording/reproducing device according to claim 1, wherein said transmission means (element 32 of figure 1) continues transmitting said data regardless of such a change of status as a start and an end of recording by said recording means. Column 9, lines 41-62 explain that the recording, reading out and writing/transmitting duties are performed independently of each other causing the continuous transmission of data to the buffer.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda in view of Nozaki, US Patent 6,937,549.

Regarding claim 7, Ikeda teaches the limitations of claim 1. Ikeda does not but Nozaki teaches the recording/reproducing device, further comprising verification means for verifying the recording on said information recording medium based on said data stored by said storage means (column 11, lines 8-14 and 39-48). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of storing and verifying data before writing as taught by Nozaki into the system of Ikeda. The motivation would be to ensure quality of data before finalizing the disc (column 11, lines 29-38 of Nozaki).

Regarding claim 8, Nozaki teaches the recording/reproducing device, wherein said transmission means diverts and transmits said data stored by said storage means for verifying said recording on said information recording medium (column 10, lines 21-30).

Regarding claim 9, Nozaki teaches the recording/reproducing device, wherein said verification means skips verification of said recording on said information recording medium if excessive time cannot be ensured by the readout with said readout means. Column 9, lines 19-42 explain situations where the verification or finalizing step is skipped. One example includes where the information is erased as a period of time of a certain extent has passed. This serves the same purpose of skipping the verification step, as excessive time is not ensured.

6. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda in view of Sako et al. US Patent Publication 2003/0161233.

Regarding claim 4, Ikeda teaches the recording/reproducing device according to claim 1. Ikeda does not but Sako et al. teaches the device, wherein: said recording means records said data on said information recording medium by a constant linear velocity method (paragraph 0062); and said readout means reads out said data recorded on said information recording medium while keeping a linear velocity of the recording by said recording means (paragraphs 0065 and 0072). All of the cited areas all give constant linear velocity as an example of the method used. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of recording using a constant linear velocity method as taught by Sako et al. into the system of Ikeda. The motivation would be to control the driving motor accurately at a constant velocity (paragraph 0065 of Sako et al.).

Regarding claim 10, Ikeda teaches the recording/reproducing device according to claim 1. Ikeda does not but Sako et al. teaches in paragraph 0065 the recording/reproducing device, further comprising setting means for setting at least one of an exhaustion limit value parameter and a frequency limit value parameter (parts of the given RF signals that are necessary to reduce the focusing and tracking error signals to 0) of collective readout for said readout of said data by said readout means in accordance with a communication speed ("constant linear velocity"). The given section explains how the RF circuit is used to generate certain signals that perform the given tasks, meaning that limits are set within the circuit during the readout of the data. It would have been obvious to one of ordinary skill in the art at the time of the invention to

include the concept of including the given parameters in the readout as taught by Sako et al. into the system of Ikeda. The motivation would be to control the driving motor accurately (paragraph 0065 of Sako et al.).

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda in view of Sako et al., further in view of Shido, US Patent 5,995,704.

Regarding claim 11, Ikeda teaches the recording/reproducing device according to claim 1. Ikeda does not but Sako et al. teaches in paragraph 0065 the recording/reproducing device, further comprising selection means to select at least one of an exhaustion limit value parameter and a frequency limit value parameter (parts of the given RF signals that are necessary to reduce the focusing and tracking error signals to 0) of collective readout for said readout of said data by said readout means. The given section explains how the RF circuit is used to generate certain signals that perform the given tasks, meaning that limits are set within the circuit during the readout of the data. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of including the given parameters in the readout as taught by Sako et al. into the system of Ikeda. The motivation would be to control the driving motor accurately (paragraph 0065 of Sako et al.). Sako et al. does not but Shido teaches that a user may arbitrarily select the given control values (column 7, lines 14-23 and column 8, lines 26-29). The given sections explain how the user sets most of the control data through a setting circuit (element 810 of figure 8). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of a setting circuit as taught by Shido into the system of Sako et al. The

motivation would be to allow the user to manually set the limiting values (column 7, lines 14-23) in response to individual requirements.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Parul Gupta whose telephone number is 571-272-5260. The examiner can normally be reached on Monday through Thursday, from 9:30 AM to 7 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PHG
11/2/06

ANDREA WELLINGTON
SUPERVISORY PATENT EXAMINER